

A Survey On Nutrition Knowledge And Practices Regarding Their Children's Nutritional Needs And Dietary Habits Among Mothers Of School Going Children (5-15 Yrs)

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ABSTRACT

Background: Healthy eating behaviors in childhood are very important. It helps prevent malnutrition, growth retardation, and acute child nutrition problems, in addition to preventing chronic, long-term health problems such as cardiovascular diseases, type 2 diabetes, cancer, obesity, and osteoporosis. Parents are mostly responsible on this subject (Nicklas, 1995; Nicklas & Hayes, 2008). Parents are effective on their children's eating behaviors and preferences. Especially, mothers are the role models of their children about eating behaviors.

Objective: Purpose of this study is to assess mothers' nutritional knowledge of their children's nutrition needs and requirements and their practices regarding packing healthy lunches and dietary habits of their school going children aged between 5-15 yrs

Method: A pre tested structured questionnaire was given to the mothers to determine their nutritional knowledge and attitudes and behaviors about their children's nutrition. Total 480 mothers were interviewed via questionnaire method. Results indicated that many of the mothers who have higher nutritional knowledge level pack healthy foods from all the food groups and their children have normal weight. Also I was observed that a large percentage of children consume food while watching television which is not considered healthy.

Result: The mothers who have higher level nutritional knowledge feed their children more with vegetable, fruit, legumes, and less sugared drinks such as pops, juice and fast foods than the mothers who have lower level of nutritional knowledge. Also, higher nutritional knowledge level mothers avoid giving the foods which contains high sugars to their children, and believe more the knowledge about nutrition-health. Mothers' nutrition knowledge level affects children's eating habits.

Conclusion: Diet and nutrition of children influence their current health status and scholastic performance and also have long term consequences reaching well into their adulthood. The awareness of good eating habits and nutritional practices among mothers of school going children is very essential.

Key words: childhood Nutrition, Nutritional Knowledge, packed lunches, school going children, importance of healthy eating

INTRODUCTION AND REVIEW OF LITERATURE

Childhood nutrition is central to healthy human development and is an important public health issue worldwide (WHO, 2002;2009)

The nutritional status of children is important as it determines their health, physical growth and development, academic performance and progress in life. All children have the right to adequate nutrition, which is essential for attainment of the highest standard of health (1)

Moreover, good nutrition has been reported to be the corner stone for survival, health and development in the current and succeeding generations (2). Globally, malnutrition among school age children is becoming a major public health concern. More than 200 million school age children are stunted and if no action is taken, and at this rate, about 1 billion stunted school children will be growing up by 2020 with impaired physical and mental development (3).

School-age children constitute a little less than one quarter of the world's population, and around three quarters of these children live in developing countries.1 A child's dietary habits acquired early in childhood continue into adulthood.2 The school going ages form the foundation of future life in terms of physical, emotional and mental aspects and strongly influence the child's health in

her/his adult life.^{3,4} Adequate and appropriate dietary intake is essential in these ages for inculcating healthy eating habits so as to provide nutrients not just for the immediate growth, development and scholastic (11)

In the past decades, transitions in dietary intake among children have been observed and characterized by a higher intake of foods rich in fats, sodium, and sugar and by lower Intakes of nutrient dense foods such as fruit and vegetables. (2,3) These changes in food intake have Had a major impact on the development of obesity and nutritional deficits. In addition, studies have suggested the role of child- hood nutrition on the development of morbidity in further life cycles, such as in adulthood. (4,5)

Food habits acquired during childhood persist into adulthood and form the basis of either good health or ill health, as the case may be, in the coming years. Hence there is a need to educate parents, especially in the middle and higher socioeconomic groups regarding correct dietary habits for the children to ensure that they can live healthy and productive lives as adults.(11)

The dietary habits of individuals /families /communities vary according to socioeconomic factors, regional customs, traditions, seasonal availability of food items etc. While there are various methods of qualitative and quantitative diet surveys, finding a suitable method of assessing dietary intake for the population under study poses, at times several problems.(8,11) Dietary assessment of schoolchildren may be difficult as children due to limited attention span and issues of recall and cognitive abilities for self reporting may not be able to provide accurate responses. Hence researchers usually have to rely on collecting information from the parents or caregivers and while this seems to be a satisfactory alternative when the population of interest is smaller children, however parents may at times be unaware what older children consume when away from home.⁶ Qualitative diet surveys can be used to gain qualitative details of diet and for studying the patterns of food consumption, food likes/dislikes etc at a household level. This method has been used to study meal patterns, dietary habits, preferences and avoidances and weaning and infant feeding practices.(12)

Parents play an important role as their young child develops dietary habits (4,5). Parents influence children's familiarity with and preferences for fruits, vegetables and whole grains by controlling the availability, accessibility and exposure to those foods (6,7,8,9). The child's consumption of fruits vegetables and whole grains is in turn dictated by their developed food preferences, food availability and accessibility (10).This survey was carried out to understand the mother's knowledge and practices regarding nutrition of their school going children

AIMS AND OBJECTIVES

1. The objective of this survey was to study the feeding and physical activity patterns of the school going children of age 5-15 years.
2. To assess the knowledge about Nutrition breakfast and packed lunches for school going children among the mothers.
3. To spread awareness and educate the mothers about the importance of childhood nutrition.

MATERIALS AND METHODS

The study was conducted using Qualitative diet survey method by oral questionnaire method. a descriptive, structured questionnaire in 480 mothers of school going children in ages 5-15 yrs.

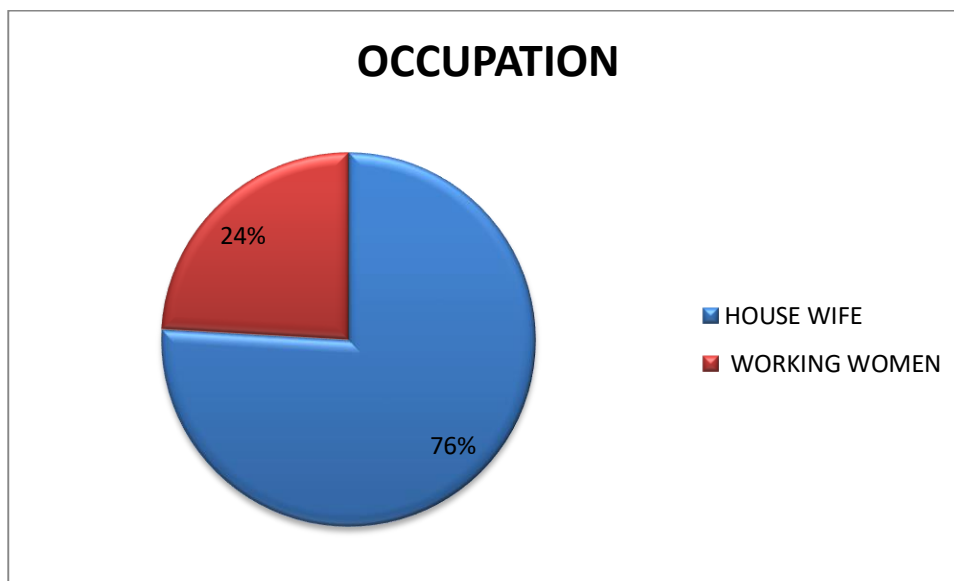
The questionnaires were distributed to all parents, after taking their consent and explaining to them the purpose of the study. The method of filling the questionnaire was explained in detail and parents were assured about confidentiality of the contents. The data collected was on the food habits, frequency of various types of food eaten and the preferences/dislike to various food items and mothers knowledge on children's nutritional needs.

The information was obtained by conducting face to face interview method. The questionnaire was used to elicit information to collect information on (i) age, education qualification, , (ii) knowledge on Nutritional needs, (iii) attitudes towards food and its various groups and (v) healthy packed lunch practices.

The responses were analyzed using Microsoft excel and Google docs.

RESULTS AND DISCUSSION

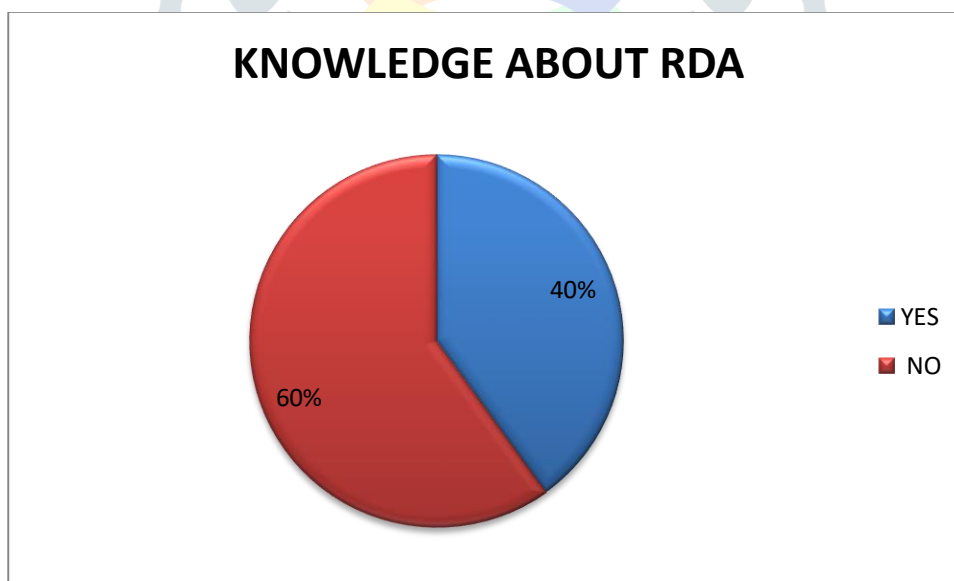
1. The survey was conducted in 480 mothers of school going children out of which 56% were between 25-35 years and 44% were between 35-45 years of age.



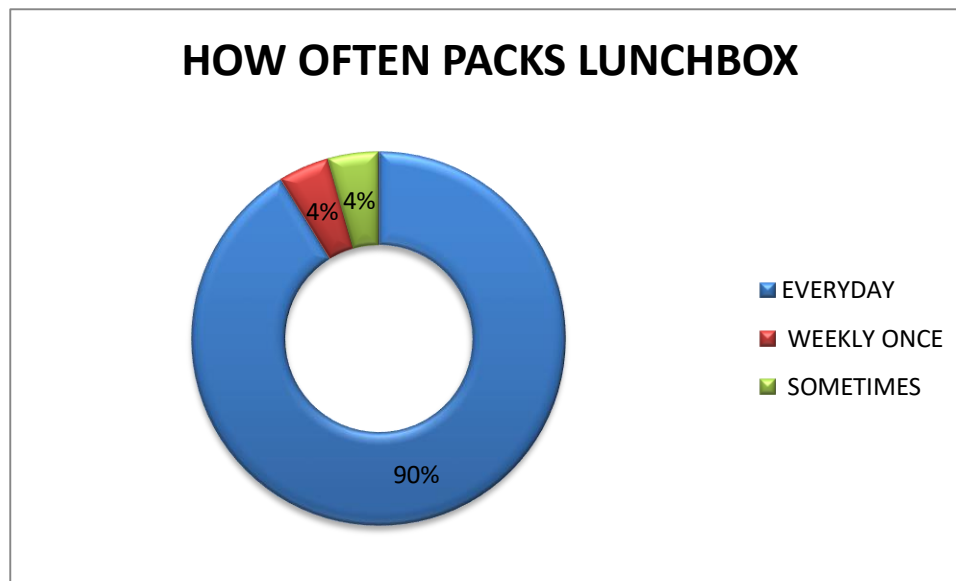
Around 76% participants were housewife and remaining 24% participants were working women.

Ages of the children

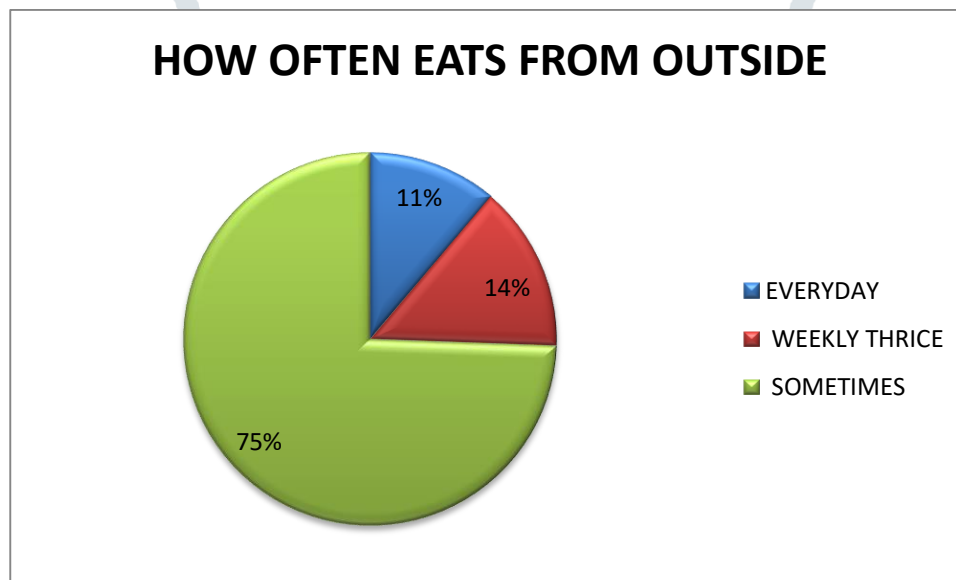
Around 5% children were 6 years old, 11% were 7 years old, 14% were 8 years old, 19% of children were both 9 and 10 years respectively. And 13% were both 11 and 12 years old respectively. 4% of children were 13 years old and remaining 2% children were 14 years old.



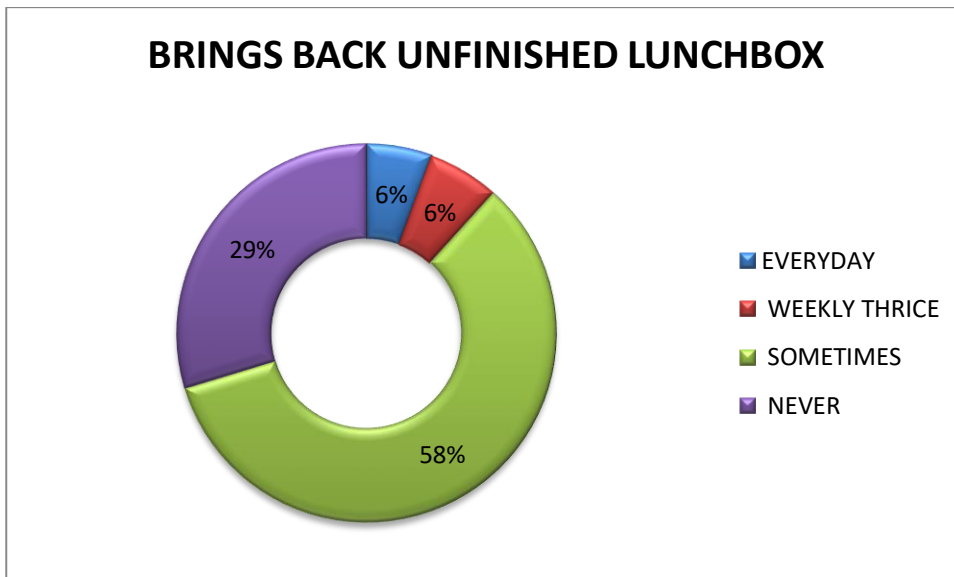
2. Out of 480 women only 40% women had the knowledge about RDA, rest 60% women were unaware.



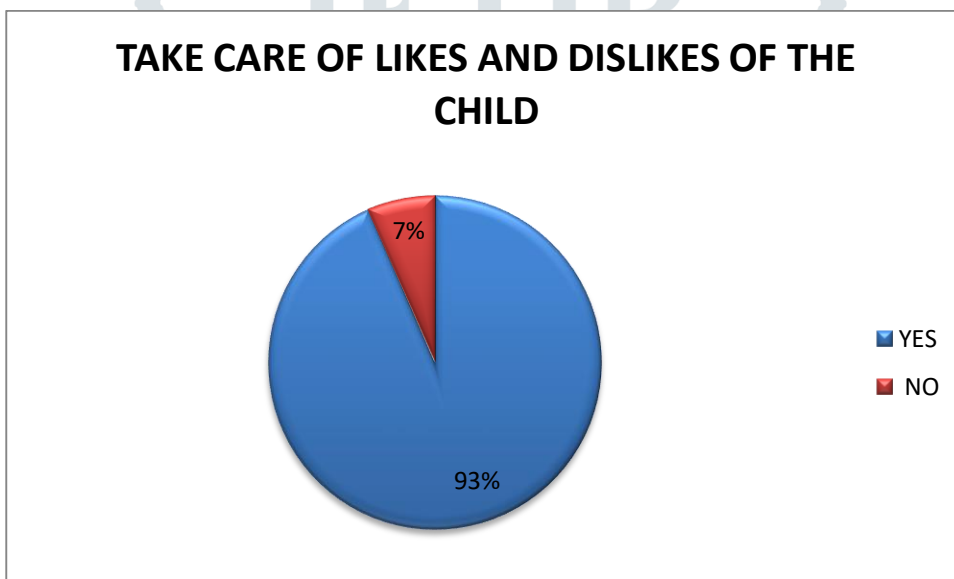
3. 90% mothers pack lunch box for their child on daily basis. 4% weekly once and remaining 6% women packs lunchbox sometimes for their child.



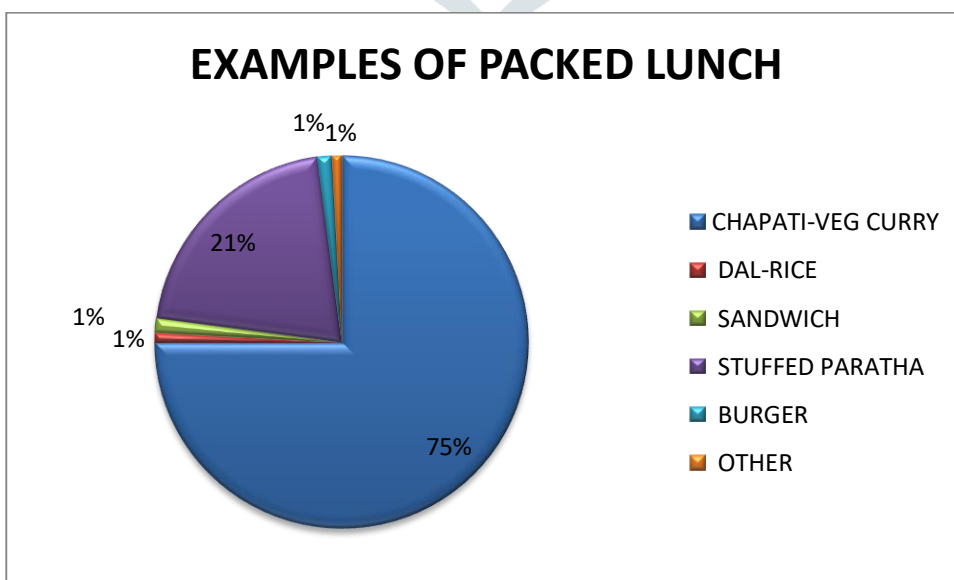
4. All children eat outside food but 11% children eat everyday from outside, 14% weekly thrice whereas remaining 75% eats sometimes from outside.

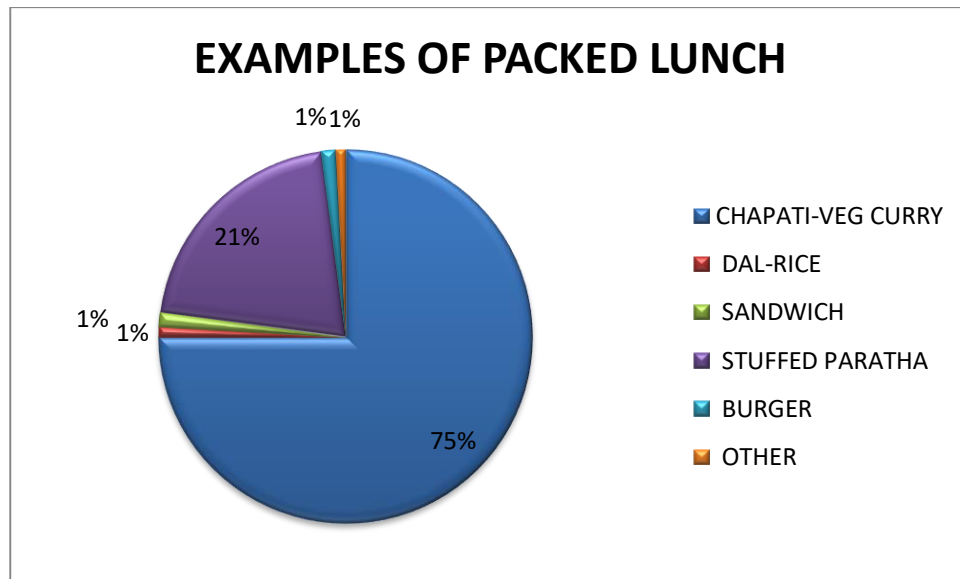


5. Out of all children only 6% children brings unfinished lunchbox everyday, 6% weekly thrice, 58% sometimes and remaining 29% children never brings back unfinished lunchbox.



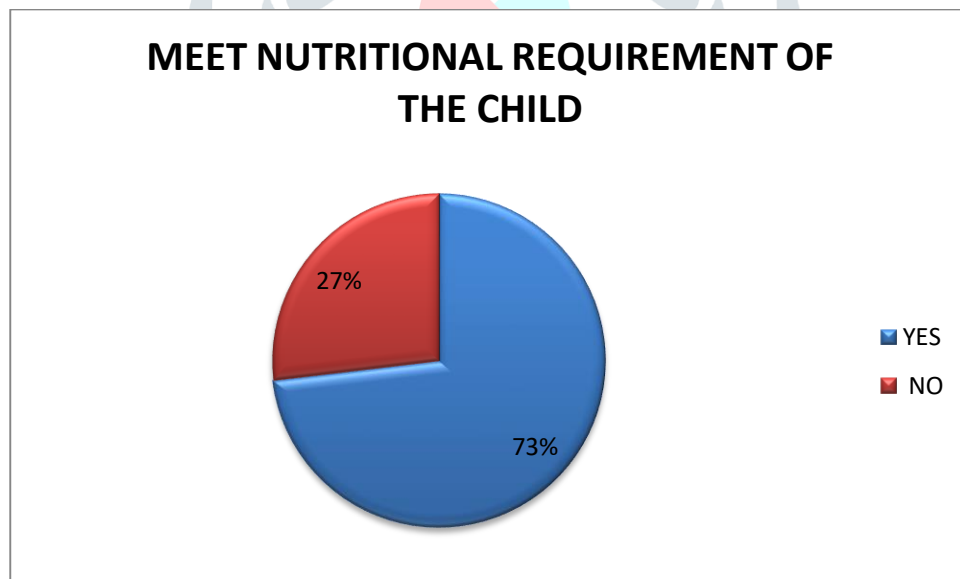
6. Around 93% mothers take care of likes and dislikes if their children, remaining 7% don't.



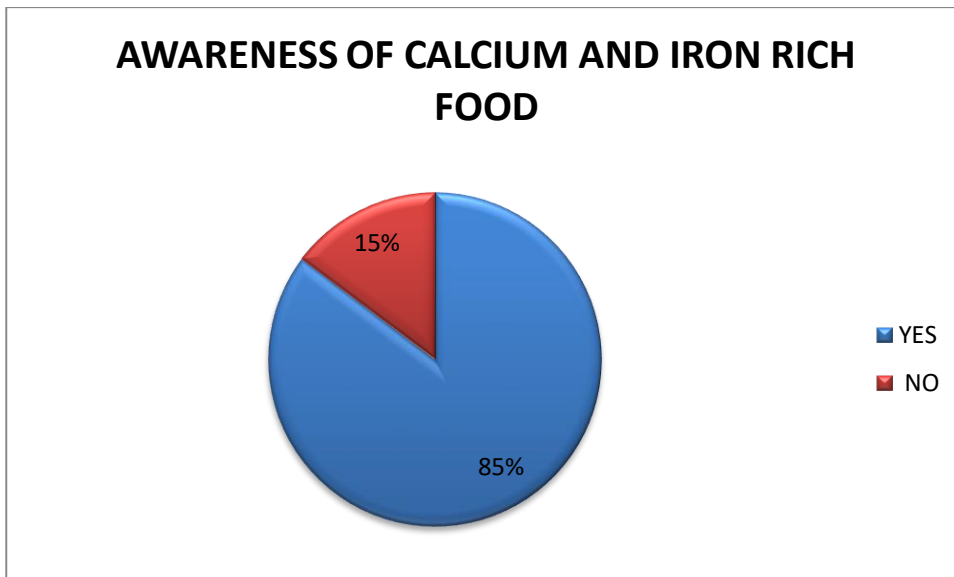


7. Various food items were packed as lunch of the children. Like 21% times chapati and veg-curry, 19% dal-rice, 21% sandwiches, 10% stuffed parahta, 10% burger and 19% other food items.

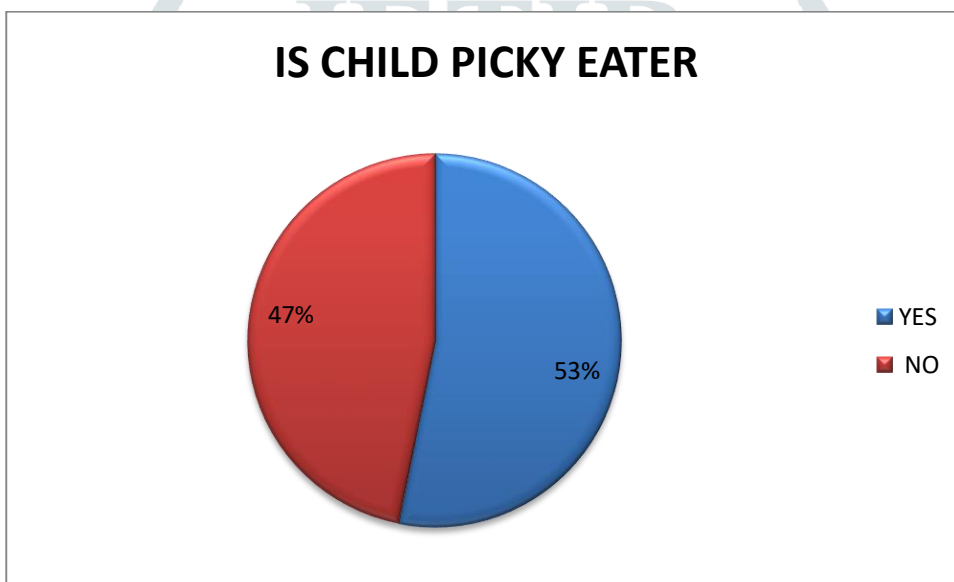
8. According to the survey, chapati was given 80% on daily basis, 22% 2-3 times a day, 8% weekly once. Whereas rice was given 75% of, the mothers gave rice daily 20% 2-3 times a day, 5% weekly once. Similarly all food groups were included in their diet in different quantity.



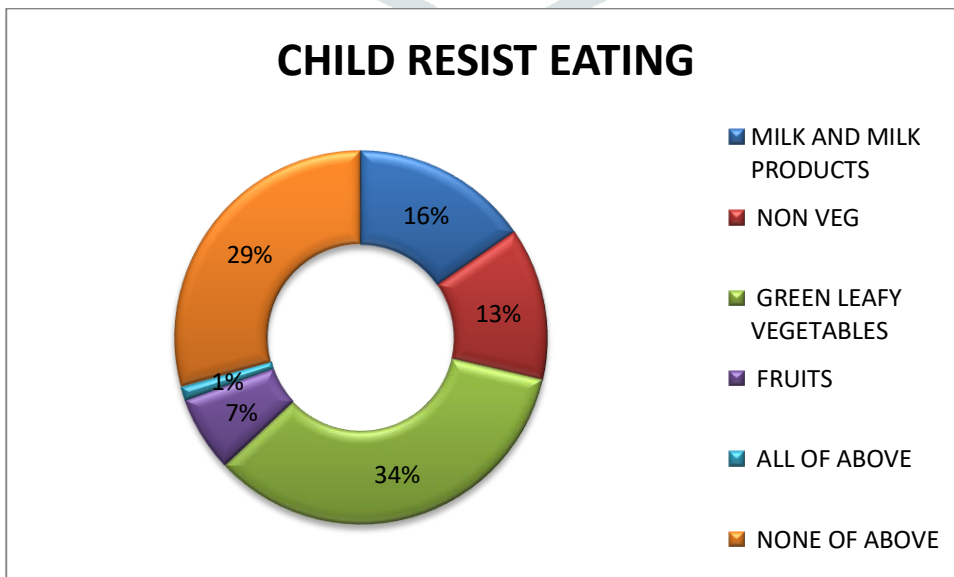
9. According to the survey, upon analysing food frequency data around 73% of children meet their RDA while remaining 27% don't.



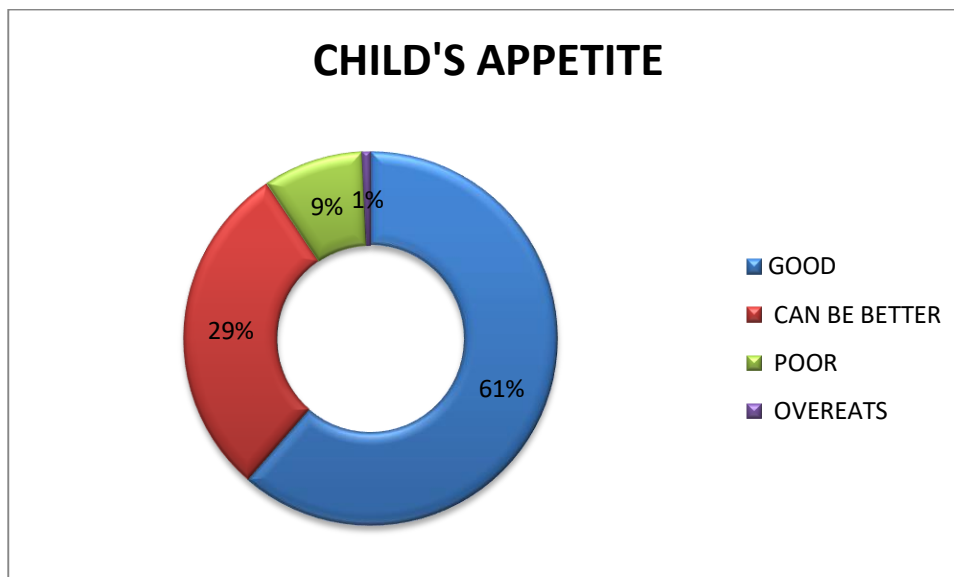
10. Out of 480 mothers, around 85% of mothers were aware of calcium and iron rich foods while remaining 15% were unaware



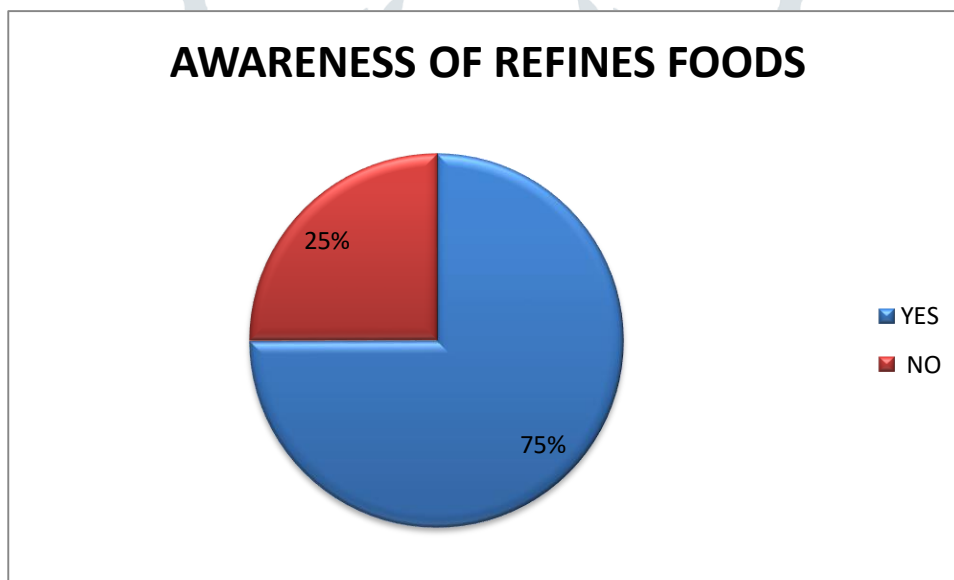
11. According to the survey, around 53% of the children are picky eaters.



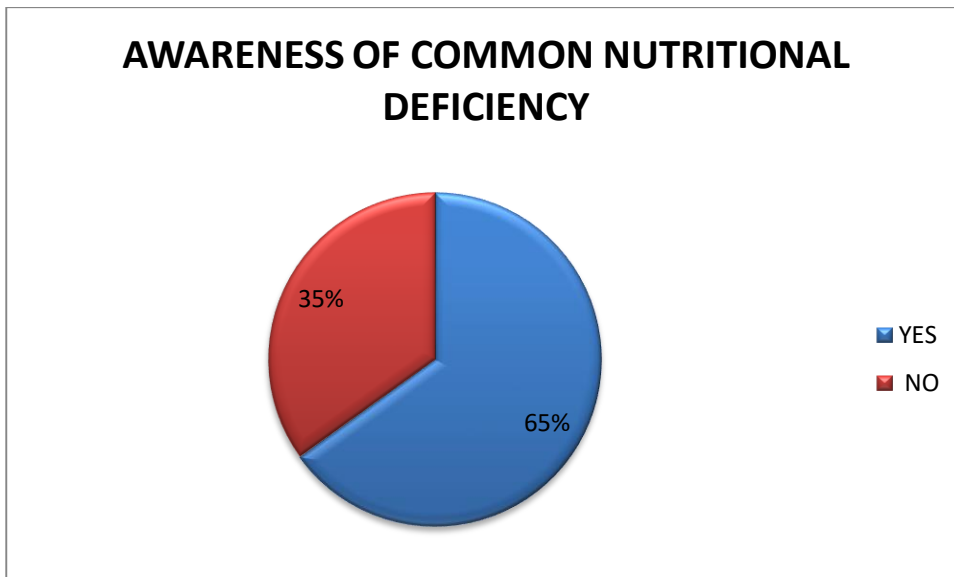
12. It was found that 16% children don't like to eat milk and milk products, 13% non-veg, 34% green leafy vegetables, 7% fruits, only 1% all of the above and 29% none of the above.



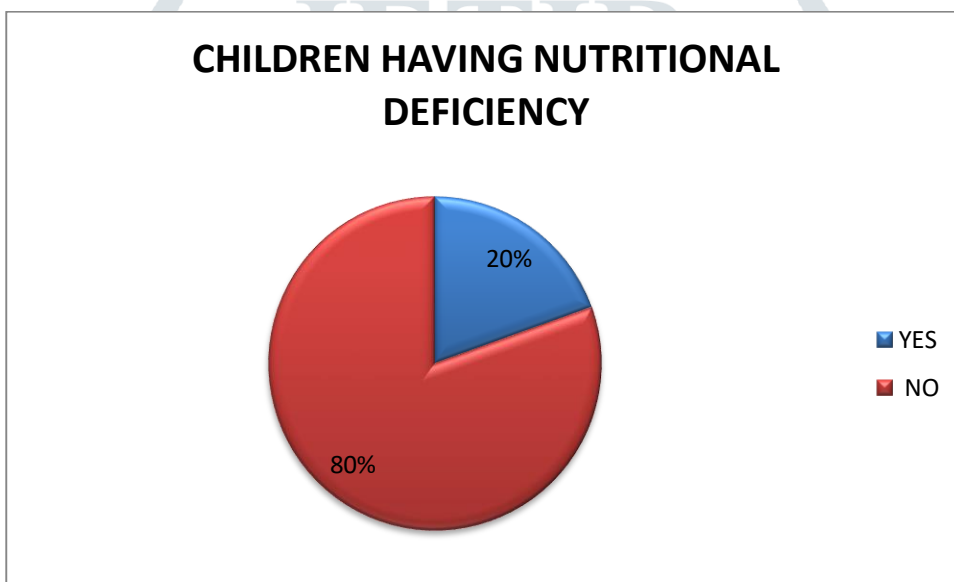
13. According to the survey, 61% of the children have good appetite, 29% think that it can be better, 9% children have poor appetite and remaining 1% overeats.



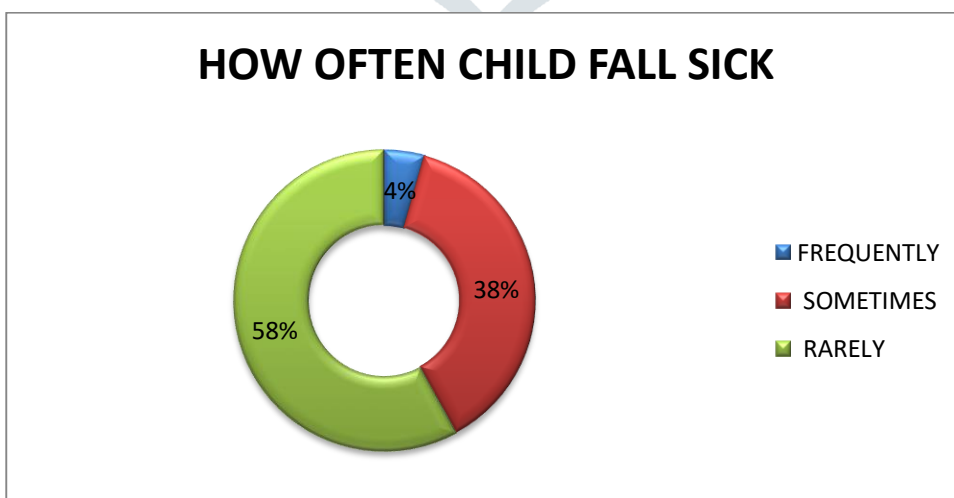
14. We found out that about 25% of the mothers were unaware of the refined foods which are not to be given to the children, remaining 75% mothers were aware.



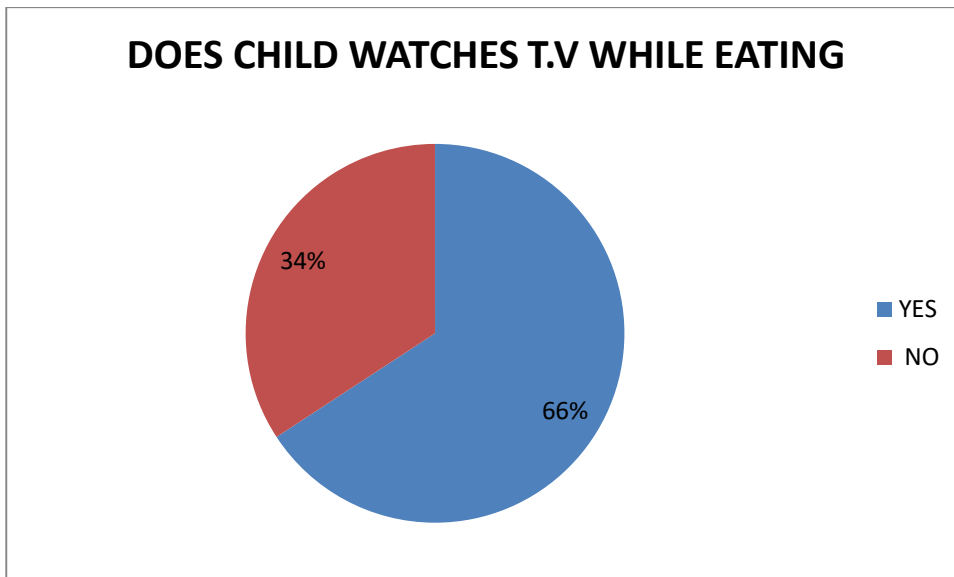
15. Around 65% of the mothers were aware of the common nutritional deficiencies while remaining 35% mothers were not.



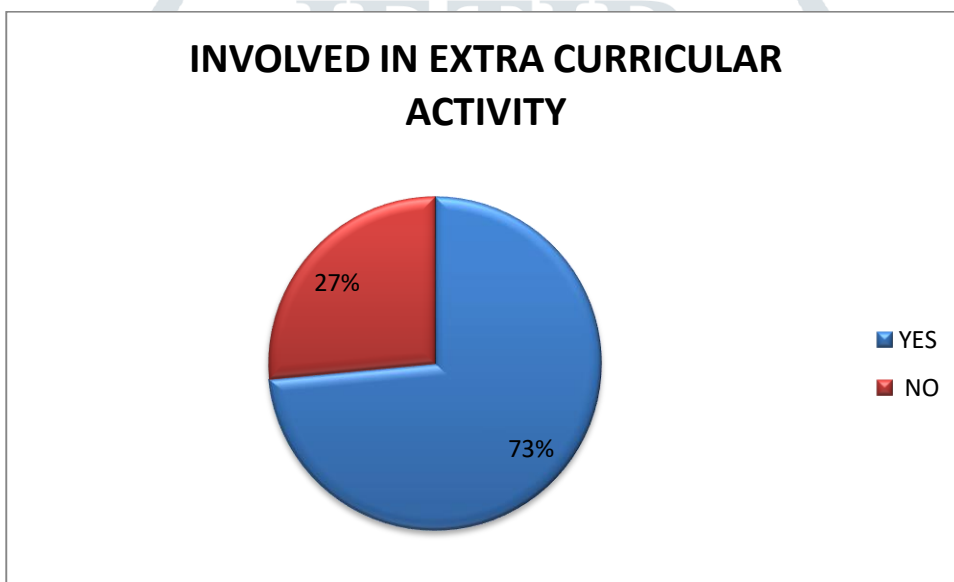
16. It was found that around 80% of children were not having any nutritional deficiency while remaining 20% children were nutrient deficient.



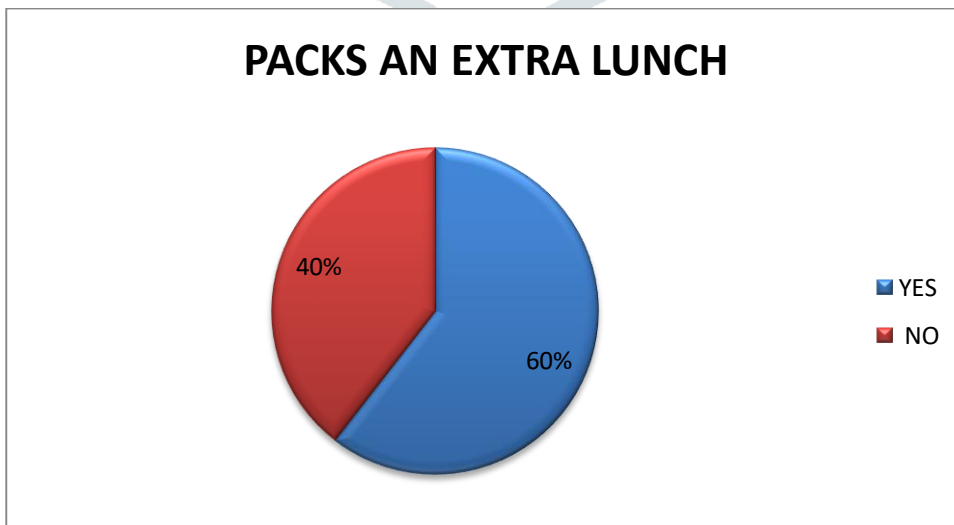
17. According to the survey, out of all, around 58% of children fell sick rarely, 38% sometimes while only 4% children fall sick frequently.



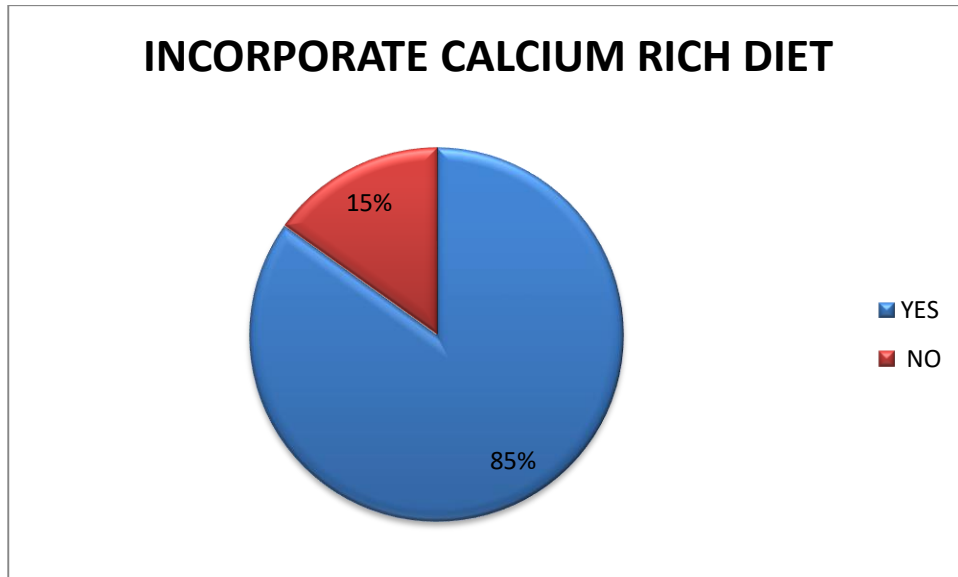
18. Almost 66% children eat their food while watching T.V. while remaining 34% don't.



19. Around 73% children are involved in extra curricular activity.



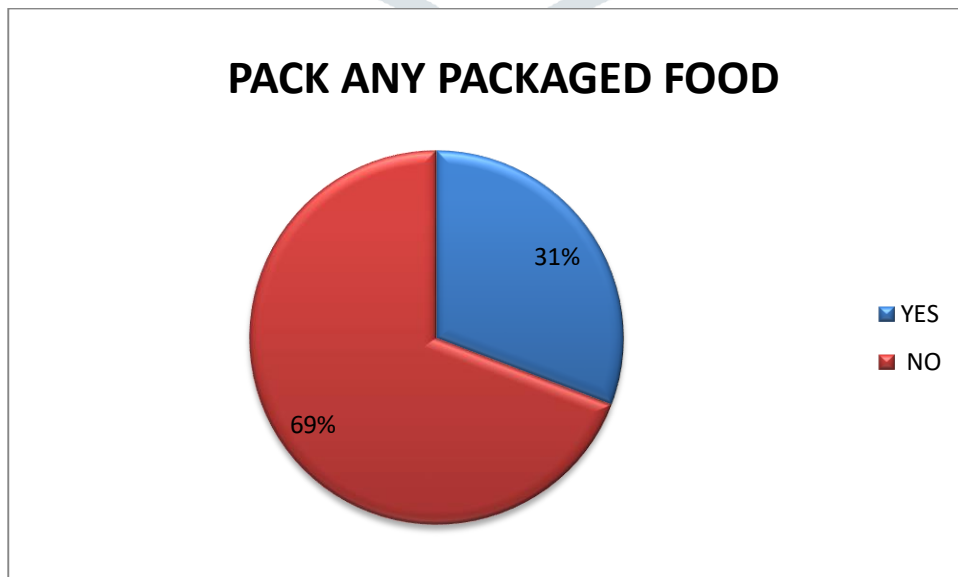
20. It was found that around 60% mothers packs an extra lunchbox for their child if he is involved in extra curricular activity, while 40% others don't pack.



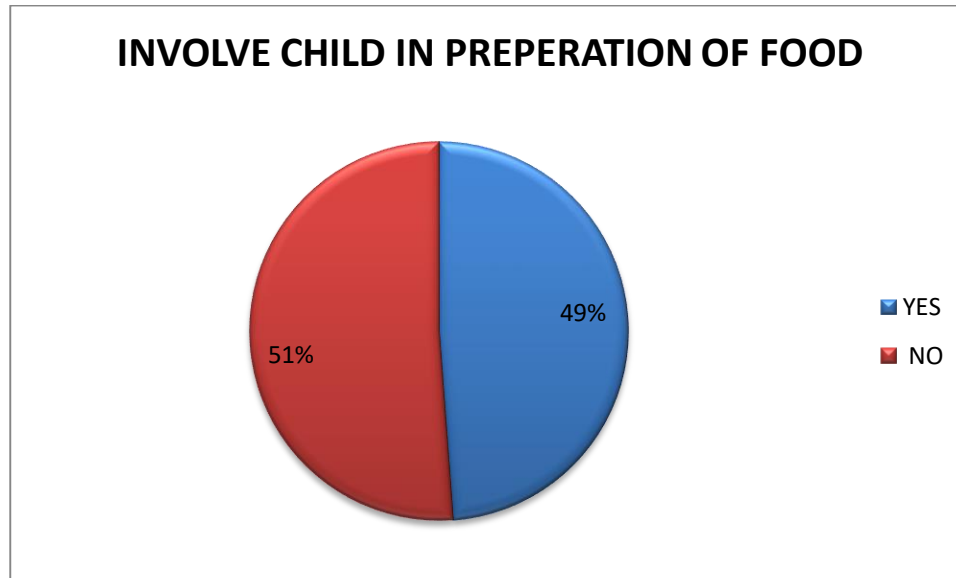
21. 85% mothers provide their children with iron and calcium rich foods.



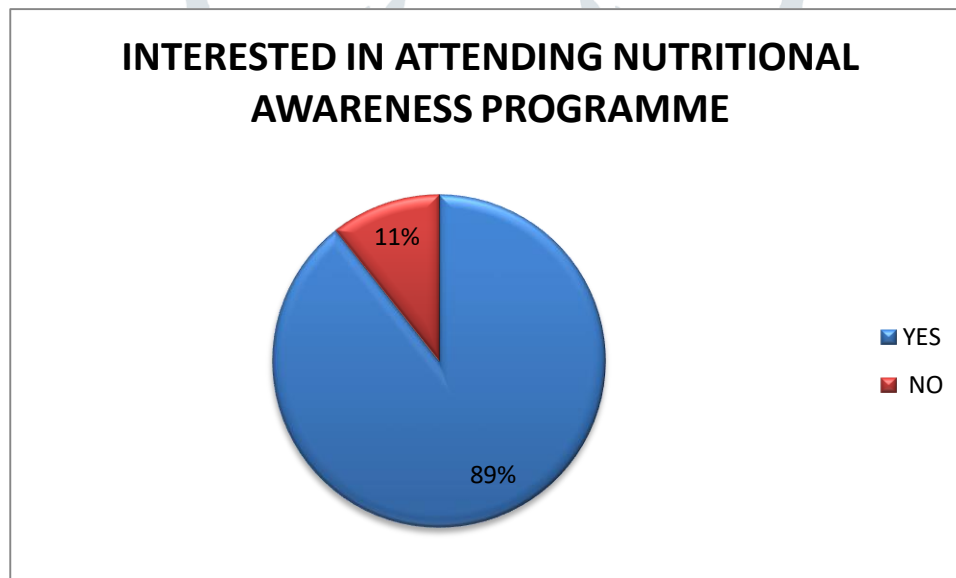
22. It was found that around 80% mothers give nutritional supplements to their child.



23. 69% of the mothers don't give their children packaged food items while remaining 31% mothers prefer giving it to their child.



24. According to the survey, Only 51% mothers involve their children in preparation of food at home, remaining 49% mothers don't.



25. It was found out that around 89% mothers were interested in attending nutritional awareness programme while remaining 11% mothers were not interested.

DISCUSSION

Form the above survey we are able to draw out various conclusions. We are able to learn that most of the mothers are aware of the general dietary guidelines for their children. They are concerned of the eating habits of their children. Most of the mothers also know about the various important food nutrients that are essential for the children and also the deficiencies related to them. Mothers are aware about a number of food items and their nutritional values mothers do take care of their children's eating habits besides what they eat. The likes and dislikes of the children are also considered. There are a few mothers that also complain about the appetites of their children that have to be improved. They also complain about the fact that there a few food items in particular that their children resist such as milk and milk products, green leafy vegetables, fruits or non-vegetarian items resulting in various deficiencies in the body. Mothers should be educated to add varieties to the diet so that the kids are attracted to eat. Mothers should also include their children during the preparation of their lunches so that even the children inculcate the habit of packing their lunches. It should be taken care that children eat well and follow a healthy lifestyle

The lunch boxes should preferably consist the chief nutrients such as carbohydrates, proteins, essential fats, fundamental minerals and vitamins.

Apart from a wholesome breakfast, a healthy and fulfilling packed lunch helps the child to boost concentration and provides energy for the day.

Therefore mothers should be educated and trained for better lunch practices of their children to provide them a healthy and better life. Through the present survey many of the mothers agreed to participate in nutrition awareness programs which could help them enhance their knowledge regarding children's nutrition

CONCLUSION:

Diet and nutrition of children influence their current health status and scholastic performance and also have long term consequences reaching well into their adulthood. Further, diet preferences and practices acquired during childhood usually persist for life. Data on nutritional intake of school children is required by public health policy makers to be able to formulate nutritional intervention and also for nutritionists and general practitioners to be able to advise parents and care givers regarding the inadequacies in the diet.

The awareness of good eating habits and nutritional practices among mothers of school going children is very essential. Children at a tender age cannot particularly decide what is beneficial for them to eat and what has to be avoided, therefore mothers play an important role in the well-being of their children. Emphasis should mainly be on the lunch practices of the children. Packed lunches are a very necessary part of the daily diet routine for the kids as the schools are either too far or the lunch breaks are too short for the children to come home and have their lunch. Hence, packed lunch containing the Basic Four Food Groups in adequate amounts should be provided to meet the daily requirements for the growth and development of the child.

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ANNEXURE 1

**ST. ANN'S COLLEGE FOR WOMEN
DEPARTMENT OF NUTRITION**

A Survey On Nutrition Knowledge And Practices Regarding their children's' Nutritional needs and dietary habits Among Mothers Of School Going Children (5-15 Yrs)

GENERAL INFORMATION

Name of the respondent: _____

Age of the respondent: _____

Educational qualification: _____

Occupation: _____

Contact number: _____ E-mail: _____

Number of children (between 5-15years): _____

PACKED LUNCHES

1. Do you know what are the Recommended Dietary Allowances (RDA) for your child?
Yes/No

2. How often do you cook and pack your child's lunch?
(I) Everyday (II) Weekly thrice (III) Sometimes

3. How often does your child eat lunch from outside?
(I) Everyday (II) Weekly thrice (III) Sometimes

4. How often does your child bring back unfinished lunch box?
(I) Everyday (II) Weekly thrice
(III) Sometimes (IV) Never

5. Are the likes and dislikes of your child kept in mind while packing lunch?
Yes/No

6. Examples of packed lunches that you pack

7. FFQ for packed lunches

S.NO.	FOOD ITEMS	QUANTITY	Frequency Daily/weekly twice/ weekly 3 times/ never
1.	Chapati		
2	Rice		
3.	Green leafy vegetables		
4.	Other vegetables		
5.	Non- vegetarian		
6.	Dals		
7.	Fruits		
8.	Milk and milk products		

NUTRITIONAL AWARENESS

8. Do you think you are meeting the nutritional requirements of your child?

Yes/No

9. Are you aware of calcium and iron rich foods?

Yes/No

10. Is your child a picky eater?

Yes/No

11. Which of the following does your child resist eating?

Milk and milk products

Non-vegetarian foods

Green leafy vegetables

All of the above

Fruits

None of the above

12. Is your child very fond of any of the following foods?

- Chips
- Carbonated drinks (Eg: Pepsi etc.)
- Fast foods (Burger, Pizza etc.)
- Chocolates

13. How is your child's appetite?

(I) Good

(II) Can be better

(III) Poor

(IV) Over eats

14. Are you aware that refined foods are not good for your child?

Yes/No

If yes, name some _____

15. Are you aware of the common nutritional deficiencies among children?

Yes/No

If yes, name some _____

16. Does your child have any nutritional deficiencies?

Yes/No

If yes, what _____

17. How often does your child fall sick?

(I) Frequently (II) sometimes (III) rarely

18. Does your child eat while watching TV?

Yes/No

PRACTICE QUESTIONS

19. Is your child involved in any extra-curricular activity?

Yes/No

20. Is it within the school or outside?

If within the school, do you pack an extra lunch?

Yes/No

21. What does the child eat after returning from school?

22. Do you incorporate calcium and iron rich foods in your child's diet?

Yes/No

23. Do you give any nutritional supplements (Appetizers/Tonics) to your child?

Yes/No

24. Do you pack any packaged foods in lunch for your child?

Yes/No

If yes, what _____

25. Would you be interested in attending a nutritional awareness program pertaining to childhood nutrition?

Yes/No

